

WHAT IS CLAIMED IS

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1. A method for measuring a position of an in vivo radio device administered into a living organism, comprising the steps of:

10 transmitting a vital information signal or a position measuring signal by the in vivo radio device;

15 receiving the vital information signal or the position measuring signal by a plurality of ex vivo radio devices disposed outside of the living organism; and

20 measuring the position of the in vivo radio device, based on receiving characteristics of the vital information signal or the position measuring signal received by the ex vivo radio devices.

25 2. A position measuring system comprising an in vivo radio device administered into a living organism, a plurality of ex vivo radio devices disposed outside of the living organism, and a position measuring device, wherein,

30 the in vivo radio device includes a transmitter for transmitting a vital information signal or a position measuring signal;

each of the ex vivo radio devices includes a receiver for receiving the vital information signal or the position measuring signal; and

35 the position measuring device includes a position measuring unit for measuring a position of

the in vivo radio device based on receiving characteristics of the vital information signal or the position measuring signal received by the ex vivo radio devices.

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3. A position measuring system comprising
10 an in vivo radio device administered into a living organism, and a plurality of ex vivo radio devices disposed outside of the living organism, wherein,
each of the ex vivo radio devices includes a transmitter for transmitting a position measuring
15 signal; and

the in vivo radio device includes a receiver for receiving the position measuring signals from the ex vivo radio devices, and a position measuring unit for measuring a position of
20 the in vivo radio device based on receiving characteristics of the position measuring signals from the ex vivo radio devices.

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4. A position measuring device for measuring a position of an in vivo radio device administered into a living organism, comprising:

30 a position measuring unit for measuring the position of the in vivo radio device, based on receiving characteristics of a vital information signal or a position measuring signal transmitted from the in vivo radio device and received by a
35 plurality of ex vivo radio devices.

5. The position measuring device as claimed in Claim 4, wherein

5 the position measuring unit measures the position of the in vivo radio device, based on one of differences in receiving times of the vital information signals or the position measuring signals received by the ex vivo radio devices, phase
10 differences of the vital information signals or the position measuring signals received by the ex vivo radio devices, and arriving directions of the vital information signals or the position measuring signals received by the ex vivo radio devices.

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6. An in vivo radio device to be
20 administered into a living organism, comprising:
a receiver for receiving position measuring signals transmitted from a plurality of ex vivo radio devices; and

25 a position measuring unit for measuring a position of the in vivo radio device, based on receiving characteristics of the position measuring signals received from the ex vivo radio devices.

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7. The in vivo radio device as claimed in Claim 6, wherein

35 the position measuring unit measures the position of the in vivo radio device, based on one of differences in receiving times of the position measuring signals received from the ex vivo radio

devices, phase differences of the position measuring
signals received from the ex vivo radio devices, and
arriving directions of the position measuring
signals transmitted by the ex vivo radio devices and
5 received by the in vivo radio device.

10 8. The in vivo radio device as claimed in
Claim 6, wherein,
the position measuring unit notifies the
ex vivo radio devices of the measured position.